Atlantic Richfield Company

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Anthony R. Brown
Project Manager, Mining

August 28, 2017

Lynda Deschambault
Remedial Project Manager, Superfund Division
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street, 10th Floor (SFD 7-1)
San Francisco, California 94105

Subject: **Response to Lahontan Regional Water Quality Control Board Letter Dated August 17, 2017 Regarding the Final Focused Feasibility Study Work Plan Evaluation of Remedial Technologies for Leviathan Creek Beaver Dam/Pond Complex**
Leviathan Mine Site
Alpine County, California

Dear Ms. Deschambault:

Atlantic Richfield Company (Atlantic Richfield) is submitting this letter in response to the Lahontan Regional Water Quality Control Board's (LRWQCB) August 17, 2017 letter[1] regarding our response to one of its comments on the draft *Focused Feasibility Study Work Plan Evaluation of Remedial Technologies for Leviathan Creek Beaver Dam/Pond Complex.* The Focused Feasibility Study (FFS) Work Plan was submitted in partial fulfillment of the requirements of the Statement of Work attached to the Administrative Order for Remedial Investigation and Feasibility Study (Unilateral Administrative Order), Comprehensive Environmental Response, Compensation, and Liability Act Docket No. 2008-18 issued by the U.S. EPA on June 23, 2008.

The LRWQCB's letter addresses our response to a previous comment that describes the proposed approach for monitoring turbidity in Leviathan Creek in conjunction with removing beaver dams BD-3, BD-4, and BD-5 and constructing gabion check dams near BD-3 and BD-5. The LRWQCB's letter requests that Atlantic Richfield perform turbidity monitoring during FFS field activities to ensure that water discharged in connection with stream dewatering operations does not cause or contribute to exceedances of the Lahontan Region Basin Plan water quality objectives for Leviathan Creek.

As part of the FFS work in the beaver dam/pond complex, Atlantic Richfield has been monitoring turbidity upstream and downstream of the work zone. The upstream monitoring point is located approximately 100 feet above where streamflow is diverted into a pipeline. The downstream monitoring point is located immediately downstream of the work zone where flows enter Beaver Pond 2 from Beaver Pond 3 and from the diversion pipeline discharge. In addition, Atlantic Richfield has been monitoring turbidity farther downstream in Leviathan Creek at Station 15.

Atlantic Richfield began monitoring turbidity on July 31, 2017, before any work that could affect turbidity had been performed and continues to monitor turbidity in the stream on all days when

work that could potentially affect turbidity is performed in or near the stream. Turbidity values measured outside of storm events upstream of the work zone (where they could not be affected by FFS activities) are highly variable ranging from 24-95 Nephelometric Turbidity Units (NTU). Even under ambient conditions without any disturbance occurring within the stream, turbidity in Leviathan Creek immediately upstream of the work zone does not meet the Lahontan Region Basin Plan 15 NTU numeric water quality objective (WQO).

Atlantic Richfield will continue to monitor turbidity upstream and immediately downstream of the work zone during dewatering operations. Monitoring results will be used to verify that the water routed around and discharged below the work zone is not causing an increase in turbidity to levels greater than 110% of the upstream value at the point of discharge. Turbidity values measured at the downstream location will be compared to values measured at the upstream location on the same day. This approach will account for day-to-day variability in the turbidity of water diverted around the work zone and for potential increases in turbidity from above to below the work zone due to diverting water around the work zone, allowing water to flow through the work zone, and pumping water from the work zone. If turbidity measurements indicate that the downstream value is equal to or greater than 110% of the upstream turbidity value, discharges will be temporarily suspended and appropriate measures taken to reduce turbidity in the discharged water, including allowing sediments to settle, and using filter-socks or other sediment trapping devices.

If you have any questions or comments, please feel free to contact me at (657) 529-4537 or anthony.brown@bp.com.

Sincerely,

Anthony R. Brown
Project Manager, Mining

cc: Gary Riley, U.S. Environmental Protection Agency, Region 9 – via electronic copy
John Hillenbrand, U.S. Environmental Protection Agency, Region 9 – via electronic copy
Douglas Carey, Lahontan Regional Water Quality Control Board – via electronic copy
Scott Ferguson, Lahontan Regional Water Quality Control Board – via electronic copy
Nathan Block, Esq., BP – via electronic copy
Adam Cohen, Esq., Davis Graham & Stubbs, LLP – via electronic copy
Sandy Riese, EnSci, Inc. – via electronic copy
Marc Lombardi, Amec Foster Wheeler – via electronic copy
Grant Ohland, Ohland HydroGeo, LLC – via electronic copy
Dave McCarthy, Copper Environmental Consulting – via electronic copy
Cory Koger, U.S. Army Corps of Engineers – via electronic copy
Greg Reller, Burleson Consulting – via electronic copy

Ken Maas, U.S. Forest Service, Humboldt-Toiyabe National Forest – via electronic copy and hard copy
Susan Jamerson, Washoe Tribe of California and Nevada – via electronic copy
Neil Mortimer, Washoe Tribe of California and Nevada – via electronic copy
Norman Harry, Washoe Tribe of California and Nevada – via electronic copy and hard copy
Cale Pete, Washoe Tribe of California and Nevada – via electronic copy
Fred Kirschner, AESE, Inc. – via electronic copy and hard copy

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[1] Lahontan Regional Water Quality Control Board, 2017, Comments Regarding Atlantic Richfield Company's Response to Comments and Final Focused Feasibility Study Work Plan Evaluation of Remedial Technologies for Leviathan Creek Beaver Dam/Pond Complex, Leviathan Mine Site, Alpine County, California. August 17.